

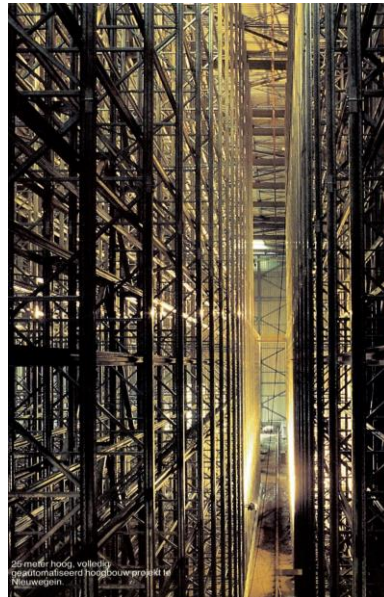
2024 – 07 – 31

**FULFILLING THE REQUIREMENTS
AS SET OUT IN THE BUILDING REGULATIONS
FOR THE NETHERLANDS
- “RACKING & SHELVING” STRUCTURES -**

EXAMPLES OF PALLET RACK STRUCTURES



**Indoor, free standing, 12.5 m,
reach truck operated**



**Indoor, free standing, 26 m,
automated crane operated**



**Rack clad, 35 m,
automated crane operated**

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1. Introduction

It has been established, for instance in cases where permits to build (“omgevingsvergunning”, in the past “bouwvergunning”) were submitted to the competent authority Dienst Vergunningverlening Toezicht en Handhaving (VTH)), that there is insufficient knowledge available at the industry concerning the Dutch building regulations in relation to racking & shelving structures, in particular the industry outside the Netherlands. To explain the regulations this document is written and translated in the English language.

The “Dienst Milieu-, Bouw- en Woningtoezicht Eindhoven”, in coordination with the national platform COBc (Centraal Overleg Bouwconstructies), has therefore taken the initiative for the underlying document with the relevant backgrounds.

Contact has been made with additional relevant expertise: Foundation Expertise Centre Building Regulations (ERB) and Racking Consultancy – Construction & Operation (RC-C&O).

The “Expertisecentrum Regelgeving Bouw – ERB” (Foundation Expertise Centre Building Regulations) is the institution in the Netherlands to provide independent support to the market and the government in developing, interpreting and applying the building regulations. Reference to www.bouwregelwerk.org.

Reference to the ERB letter below. Similar information has been communicated in the past at several occasions.

After the entry into force of the first Building Decree (1992), the demand for a Centre of expertise that bundles and facilitates knowledge and expertise about building regulations became increasingly apparent. Since its establishment in 2005, the Foundation Expertise Centre Building Regulations has served both market parties and the government.

RC – C&O is an independent consultancy in the field of structural and dimensioning design of racking and shelving structures in interface with mechanical equipment to operate such structures.

This document is created in mutual cooperation of the following experts:

- R. Nienhaus, Milieu, Bouw- en Woningtoezicht Eindhoven, lid van Centraal Overleg Bouwconstructies (COBc)
- Dr. Ir N.P.M. Scholten, Stichting Expertisecentrum Regelgeving Bouw - ERB
- Ir. C. J. Tilburgs, Racking Consultancy – Construction & Operation

This document is available on the COBc website:

[Constructieve toetsing magazijnstellingen | Vereniging-BWT.nl](#) / [Info Dutch Building Regulations for Racking & Shelving](#)

NOTE

For the translation of the titles of the relevant Dutch legislation and regulations the European Commission notification website has been used. It shall be noted that there are some illogical translations from Dutch into English. The Dutch term “bouwwerken” has been translated as “buildings”. The more logical translation for experts should be “construction works” However, “DeepL Translates” which is applied by the European Commission gives the term: “buildings”.

BRIEF



Retouradres: ERB, Van der Burghweg 1, 2628 CS Delft

Aan: Reader

Delft, 30 July 2024

Kenmerk : 2024-ERB-b008
Betreft : Publication related to racking & shelving structures for use in the Netherlands
Uw kenmerk :

LS,

In the Netherlands, racking & shelving structures are structures within the meaning of the law. This means that NEN-EN 1990 and its national annex must be complied with. In order to bridge the gap between NEN-EN 15512 with its A-deviations and the Dutch building regulations, the attached publication has been prepared. In this way, suppliers, competent authorities and owners/users of storage racks will know which regulations they have to comply with.

We trust that we have informed you sufficiently,

Yours sincerely,

Dr. ir. N.P.M. Scholten
Directeur Expertisecentrum Regelgeving Bouw

Annexe Publication "FULFILLING THE REQUIREMENTS AS SET OUT IN THE BUILDING REGULATIONS FOR THE NETHERLANDS - "RACKING & SHELVING" STRUCTURES"

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2. Definition “Construction Work” (“Bouwwerk”)

Reference to NEN-EN 1990: Eurocode - Basis of structural design and its Dutch National Annex.

EN 1990+A1+A1/C2:2019 defines “Construction works” as:

3.1.1.1

construction works

everything that is constructed or results from construction operations

Note 1 to entry: The term covers both buildings and civil engineering works. It refers to the complete construction works comprising structural members, geotechnical elements and elements other than structural.

3.1.1.2

structure

part of the construction works that provides stability, resistance, and rigidity against various actions

Note 1 to entry: This definition includes structures that comprise one member or a combination of connected members.

It is noted that this definition is not specific. The “Note 1” refers to “buildings” and “civil engineering works”. “Buildings” is clear. EN 1990 does not define “civil engineering works”.

The Dutch National Annex to NEN-EN 1990+A1+A1/C2:2019 nl, , NEN-EN 1990:2019 /NB:2019 nl , defines “construction works” (“bouwwerk”) as follows:

1.5.1 Algemene termen in EN 1990 tot en met EN 1999

Bij 1.5.1.1 bouwwerken, nummer de opmerking naar OPMERKING 1.

Voeg na opmerking 1 toe:

(begin tekst)

OPMERKING 2 Naar Nederlands recht geldt:

bouwwerk

elke constructie van enige omvang van hout, steen ¹⁾, metaal of ander materiaal, die op de plaats van bestemming hetzij direct hetzij indirect met de grond is verbonden, hetzij direct of indirect steun vindt in of op de grond, bedoeld om ter plaatse te functioneren

(einde tekst)

Unofficial translation for “Bouwwerk” (= Construction Works)

Each structure of some dimension from wood, stone ¹⁾, metal or other material, which at the site of construction either directly or indirectly is connected to the ground, either directly or indirectly is supported in or on the ground, intended to function on-site.

1) Like concrete

By upon coming into force the "Building Works Decree on the Environment" (Besluit bouwwerken leefomgeving – Bbl) and the "Environmental Act" (Omgevingswet), the definition is:

bouwwerk: constructie van enige omvang van hout, steen, metaal of ander materiaal, die op de plaats van bestemming hetzij direct of indirect met de grond verbonden is, hetzij direct of indirect steun vindt in of op de grond, bedoeld om ter plaatse te functioneren, met inbegrip van de daarvan deel uitmakende bouwwerk-gebonden installaties anders dan een schip dat wordt gebruikt voor verblijf van personen en dat is bestemd en wordt gebruikt voor de vaart;

Unofficial translation

structure: construction of any size of wood, stone, metal or other material, which at the destination is either directly or indirectly connected to the ground, or directly or indirectly finds support in or on the ground, intended to function on site, including the structural installations forming part thereof other than a ship used for accommodation of persons and which is intended and used for navigation;

3. Racking & Shelving: a Construction Work

The Dutch Building regulations refer since the publication of the "Bouwbesluit 2012" (Building decree 2012) directly to NEN-EN 1990 and the related Eurocodes in relation to principles for and methods to demonstrate structural reliability.

Up to the publication of the National Annex to NEN-EN 1990+A1+A1/C2:2019 nl, by jurisprudence the definition for "bouwwerken" (construction works) as given in NEN-EN 1990:2019 /NB:2019 nl (see Chapter 1) was common practice.

The definition by the Environmental Act per 01.01.2024 overrules that definition (see above). The definition given in the Environmental act is more accurate.

Since the "Bouwbesluit 2012", "Magazijnstellingen" (Racking & Shelving) are categorized as:

"Bouwwerken geen gebouw zijnde" (Construction works other than a building),

has to fulfil the Dutch Building Regulations.

4. Dutch Building Regulations for Racking & Shelving

On 31 December 2023 the Bouwbesluit 2012 (Building decree 2012) is expired and the technical building regulations specified in that decree has become part of the "Besluit Bouwwerken Leefomgeving – Bbl" (the Building Works Decree on the Environment - Bbl), Stb. 2018, 291, with latest published alternation by Stb. 2023, 426 in connection with Stb.2024, 93 (after 2024010 latest published alternation will be Stb. 2024, 184).

The structural safety of construction works considering its specified use, shall comply with NEN-EN 1990+A1+A1/C2:2019 and the national Dutch Annex NEN-EN 1990+A1+A1/C2:2019/NB. The Building Works Decree on the Environment is referring to this Eurocode and its National Annex and their versions valid at that time.

The Bbl specifies the requirements for Racking & Shelving structures being “construction works not being a building”:

§ 2.3.2 Vergunningplichtige gevallen bouwactiviteit

Artikel 2.27 (uitzonderingen aanwijzing vergunningplichtige gevallen bouwactiviteit in de artikelen 2.25 en 2.26)

f. een magazijnstelling die:

1°. niet hoger is dan 8,5 m; en

2°. alleen steunt op de vloer van het gebouw waarin zij wordt geplaatst;

OPMERKING De tekst in het aan het Bouwbesluit 2012 gelieerde Besluit Omgevingsrecht was correct en het is te verwachten dat bij de eerstvolgende aanpassing van het Bbl ook de bovenstaande tekst wordt aangepast. Deze luidde:

Hoofdstuk II. Categorieën gevallen waarin voor bouwactiviteiten en planologische gebruiksactiviteiten geen omgevingsvergunning is vereist

Artikel 2

Een omgevingsvergunning voor activiteiten als bedoeld in artikel 2.1, eerste lid, onder a of c, van de wet is niet vereist, indien deze activiteiten betrekking hebben op:

Bijlage II, art. 2.1

19. een magazijnstelling die uitsluitend steunt op een vloer van het gebouw waarin zij wordt geplaatst, mits wordt voldaan aan de volgende eisen:
- a. niet lager dan 3 m en niet hoger dan 8,5 m, en
 - b. de magazijnstelling niet is voorzien van een verdiepingsvloer of loopbrug;

Unofficial translation:

Chapter II. Categories of cases in which no environmental permit is required for construction and planning activities

Clause 2

An environmental permit for activities as referred to in Article 2.1 (a) or (c) of the Act is not required if these activities relate to:

19. a storage rack that rests exclusively on a floor of the building in which it is placed, provided that the following requirements are met:
- a. not lower than 3 m and not higher than 8.5 m, and
 - b. the storage rack is not equipped with a floor or walkway

Bovenstaande betekent dat een omgevingsvergunning voor de bouwactiviteit (technische aspecten) voor een magazijnstelling is vereist indien de stellingconstructie:

- hoger is dan 8,5 m, dan wel
- is voorzien van een verdiepingsvloer of loopbrug.

Unofficial translation

§ 2.3.2 Cases of construction activity requiring a building permit

Article 2.27 (exceptions indicated construction activities requiring a building permit in the articles 2.25 en 2.26)

f. a racking & shelving being:

1°. not higher than 8,5 m; and

2°. is only supported by the floor of the building in which it is installed

NOTE The text in the “Besluit Omgevingsrecht” (Environmental law decree), affiliated with the Bouwbesluit 2012, was correct and it is to be expected that at the next adaption of the Bbl the text will be replaced by the “original” text which was as follows:

Chapter II. Cases of construction activities and planning activities where no environmental (building) permit is required

Article 2

An environmental permit for activities as intended in art. 2.1, first member, under a or c, of the law **is not required** when such activities concern:

Annex II, art. 2.1

19. a racking & shelving structure only supported by the floor of the building in which it is installed, provided that the following conditions are met:

- a. not lower than 3 m and not higher than 8.5 m, and
- b. not is provided with an upper floor or walkway.

The above means that an environmental (building) permit for the technical activity for a racking & shelving structure is required when the structure is:

- higher than 8,5 m, or
- is provided with an upper floor or walkway.

5. NEN-EN 15512

Principles for the structural design of the rack type “Adjustable pallet racking” are specified in NEN-EN 15512:

“Steel static storage systems - Adjustable pallet racking systems - Principles for structural design”.

NEN-EN 15512 specifies the structural design requirements applicable to all types of adjustable beam pallet rack systems fabricated from steel members intended for the storage of unit loads and subject to predominantly static loads. Both un-braced and braced systems are included.

This document gives guidelines for the design of clad rack buildings where requirements are not covered in the EN 1993 series.

The requirements of this document also apply to ancillary structures, where rack components are employed as the main structural members.

This document does not cover other generic types of storage structures. Specifically, this document does not apply to mobile storage systems, drive-in, drive-through, pallet live storage, push back, shuttle systems, systems where two or more cranes operates one above another in the

same aisle and cantilever racks or static steel shelving systems.

For the specific design of adjustable pallet racking for use in seismic areas, this document is to be used in combination with EN 16681.

The first publication of this standard is: NEN-EN 15512:2009

Recently a revised version is published NEN-EN 15512:2020+A1:2022.

6. Dutch standardisation Institute NEN

NEN Objective and Procedures

Guiding and encouraging the development of standards by facilitating and supporting standardisation committees (SC 's).

Standardization is the process of creating protocols to guide the creation of a good or service based on the consensus of all the relevant parties in the industry. Standards ensure that goods or services produced in a specific industry come with consistent quality and are equivalent to other comparable products or services in the same industry.

Standardization also helps in ensuring the safety, interoperability, and compatibility of goods produced. Some of the parties involved in the standardization processes include users, interest groups, governments, corporations (legal entity created by individuals or shareholders with the purpose of operating for profit), and standards organizations.

Each SC is responsible for the scope and content of a published standard.

NEN SC Nr. 345081 - “Magazijnstellingen” (Racking & Shelving)

Reference to the NEN-website

The SC “Magazijnstellingen” is responsible for drawing up standards for the design, production and use of static storage racks and the surrounding working environment. To this end, on the one hand, national documents are drawn up and on the other hand, the SC actively participates in the work within CEN/TC 344 'Steel Static Storage Systems', which is responsible for the European standards in this area. In this context, the standards committee ensures the Dutch input into European standardization and determines the Dutch delegation for CEN.

Members of SC “Magazijnstellingen” are representatives of:

- Racking & shelving industry (most of the members)
- End-Users
- Companies inspecting the good state of maintenance

Standards produced by SC “Magazijnstellingen” are important in relation to a playing field as level as possible. They can also be applied in the context of private law, in case of a conflict when part of the contract.

NEN SC Nr 351001 - “Technische Grondslagen voor Bouwconstructies – TGB Plenair” (Technical Principles for Construction Works – TGB Plenair”

Reference to the NEN-website

The area of work of this committee is to promote the structural safety and usability of construction works in the Netherlands by developing standards.

Structural safety refers to the sustainable resistance of structures to the loads (wind, snow, rain, traffic, etc.) that act on them during their design life. When the interaction of construction materials and their connections cannot withstand this, it can lead to the loss of the entire structure (collapse), causing reputational damage for the parties involved and, in the worst case, even costing human lives.

The field of work of the 'TGB Plenair' covers a wide range of design techniques for structural safety of construction works in the Netherlands. This includes, but is not limited to:

- The Eurocodes (NEN-EN 1990 to NEN-EN 1999 series) and associated national annexes (NB),
- NEN 8700 series for existing construction works
- NEN 6707 for the attachment of roof coverings
- NEN 6786 and NEN 6787 for movable bridges

The field of work of the TGB committee has a public interest because it focuses on the structural reliability (safety and usability) of construction works, at socially acceptable costs. The legislator provides summary rules with regard to the assessment of structures for safety and further refers to the Eurocodes and associated national annexes and the NEN 8700 series for the assessment of existing structures.

Relevant Eurocodes

For the design of steel structures of the structural three-dimensional (sway) frame type like e.g. racking & shelving structures, the relevant Eurocodes with their National Annexes to comply with are: NEN-EN 1990+A1+A1/C2:2019, NEN-EN 1990+A1+A1/C2:2019/NB:2019, NEN-EN 1993-1-1+C2+A1:2016 and NEN-EN 1993-1-1+C2+A1/NB:2016, NEN-EN 1993-1-3 + AC + AC-2009 with NB:2011.

Relevant Sub-Committees in the context of this document

In relation to the structural design of Racking & Shelving the relevant sub-committees (SC 's) of TGB – Plenair are:

- *Nr 35100101 – TGB Basiseisen en Belastingen (Basis of structural design and actions)*
- *Nr 35100102 – TGB Staalconstructies (Steel Structures)*

Regulations

The standards drawn up by the NC TGB Plenair and its sub-committees are usually used in the context of demonstrating structural safety from the building regulations (Woningwet /Housing Act, Bouwbesluit/Building Decree 2012, Ministerial Regulation Building Decree). In addition, there are a number of standards that are related to the Construction Products Regulation (CPR).

NOTE Since 01 January 2024 the Building Decree 2012 is replaced by the Besluit Bouwwerken Leefomgeving/ Building Works Decree on the Environment – Bbl.

Members of SC “TGB – Plenair” and its Sub-committees are representatives of e.g.:

- Construction work manufacturing industry;
- Design offices;
- Science (universities and research institutes);
- Competent authorities responsible for enforcing the building regulations: Dienst Bouw- en Woningtoezicht (Municipal Building and Housing Supervision).

Standards produced by the TGB committees are to be used in complying with and checking for compliance with the Dutch building regulations.

They are to be applied in a context of public law: Acceptable for the competent authority for checking compliance with the legislation concerned.

Of course they can also be applied in a context of private law.

7. NEN-EN 15512 & Pallet rack structures falling under the Dutch building regulations

From previous chapters it may be clear that for the Netherlands:

- Racking & Shelving structures are considered as Construction Works, not being a building (in case of an indoor installation). In case of a clad-rack structure it is a building;
- Construction Works are falling under the building regulations;
- In case of standards to be applied in the context of the building regulations (context of public law), the NEN TGB committees need to be involved.

For (adjustable) pallet rack structures there is the NEN-EN 15512.

In case of the NEN-EN 15512:2009 there was a liaison between the NEN SC “Magazijnstellingen” and the NEN SC “TGB Staalconstructies”. For compliance with the building regulations, compliance with NEN 5056:2011 was also required. NEN 5056:2011 was inextricably linked to NEN-EN 15512:2009.

One may assume that in case of compliance with NEN-EN 15512:2009 + NEN 5056:2011, there is compliance with the Dutch Building Regulations (an equivalent provision to the Eurocodes concerned).

Medio 2015, CEN/TC 344 decided to review EN 15512:2009. Ending up in the EN 15512:2020 + A1:2022.

In the final drafting stage of NEN-EN 15512:2020 the SC “Magazijnstellingen” decided to end the liaison with SSC “TGB Staalconstructies”.

The SC “Magazijnstellingen” was informed by SSC “TGB Staalconstructies” that this might result in not accepting the reviewed standard by the competent authority when going for a permit to build. This was repeated regularly since mid-2020.

The liaison between the two committees is not restored till today.

This has resulted in: One may **NOT** assume that in case of compliance with NEN-EN 15512:2020 +A1:2022, there is compliance with the Dutch Building Regulations.

Reference to Chapter 7.

8. Competent authority for construction works: Position towards NEN-EN 15512

The Dutch competent authority responsible for enforcing the building regulations is the “Dienst Bouw- en Woningtoezicht” (Municipal Building and Housing Supervision).

The “Diensten Bouw- en Woningtoezicht” are organized in the “Vereniging Bouw- & Woningtoezicht Nederland - VBWTN”. An important platform of VBWTN in relation to the structural reliability/safety of construction works is “Centraal Overleg Bouwconstructies – COBc”.

The COBc via NEN has undertaken action in trying to restore the liaison between the SC “Magazijnstellingen” and the NEN-TGB Committees. So far without success.

With regard to maintaining/enforcing the structural reliability of pallet rack structures in accordance with the Dutch building regulations, the COBc has therefore no other possibility than informing its members as given in Annex A.

This current situation is undesirable. The COBc and experts in the field of legislation and regulations, of the structural Eurocodes and of the design and application of storage racks (Expertisecentrum Regelgeving Bouw -ERB, TNO, TU and Racking Consultancy – Construction & Operation) took the initiative to draft a supplement with the intention to be used in conjunction with the most recently published NEN-EN15512:2020 + A1:2022. This supplement will be made available through the website of the COBc at shortest notice.

NOTE

The application for a permit to build (Omgevingsvergunning) goes via the website “omgevingsloket.overheid.nl”:

- Vergunningcheck (check whether or not a permit is required)
- Vergunning aanvragen of melding doen (application for a permit resp. reporting a construction activity).

In general there are two types of activities a permit for is required:

- Environmental impact activity
- Technical activity.

Obviously, this document is about the “Technical Activity”.

ANNEX A NEN-EN 15512 – Position VBWTN / COBc

COBc has communicated its position regarding the revised version of NEN-EN 15512: NEN-EN 15512:2020 + A1:2022, to parties directly involved in the process mid-2022.

This position has been communicated to a wider platform of parties involved via a publication in the magazine “Bouwen met Staal” (BmSt), No. 290, December 2022, with a reference to the website of BmSt:

C.J. Tilburgs, “Koudgevoemd staal in magazijnstellingen (1) - Eisen, normen en de nationale A-deviatie” / Technisch Dossier #7 , Februari 2023.

AANVRAAG OMGEVINGSVERGUNNING

Magazijnstellingconstructies vallen onder het Bouwbesluit 2012 onder de noemer “Bouwwerken geen gebouw zijnde”. Ze zijn “Vergunningsplichtig”. Omgevingsvergunningen zijn vereist voor stellingen hoger dan 8,5m en/of tevens vloer- en/of loopbrug-dragend.

Vanaf midden 2020 bij het invulling geven aan de NL A Deviatie bij NEN-EN 15512:2020 zijn de TGB commissies, expertise op het gebied van de Eurocodes, niet betrokken geweest. De stelling dat deze norm voldoet aan NEN-EN 1990 + A1 + A1/C2:2019, met Nationale Bijlage:2019, is dan ook niet door de TGB-commissies onderschreven. De NEN-EN 15512:2020 (+A1:2022) kan dus niet worden toegepast binnen de bouwregelgeving. Het COBc (Centraal Overleg Bouwconstructies / Vereniging Bouw- & Woningtoezicht Nederland) heeft daarom afstand genomen van deze norm. Zij heeft zich op het standpunt gesteld dat het constructief ontwerp van palletstellingen nog steeds moet zijn gebaseerd op de “oude” NEN-EN 15512:2009 met daarmee onlosmakelijk verbonden NEN 5056. Bij deze normen zijn de betreffende TGB commissies wel betrokken geweest. Zie het NL Voorwoord bij beide normen. Het COBc benadrukt dat het zeer wenselijk is dat consensus met de TGB-commissies op een zo kort mogelijke termijn wordt bereikt.

Bron: Centraal Overleg Bouwconstructies – COBc

On 21 December COBc has formally communicated its position towards the revised version of NEN-EN 15512 on its website.

See website: [Constructieve toetsing magazijnstellingen | Vereniging-BWT.nl](https://www.bouwmetstaal.nl/constructieve-toetsing-magazijnstellingen)

Laatste nieuws

21-12-2023

Constructieve toetsing magazijnstellingen

Informatie

Nieuws

Leden

Agenda

Activiteiten

Documenten

Relaties

Constructieve toetsing magazijnstellingen

Voor de constructieve toetsing van magazijnstellingen gaan we als bevoegd gezag uit van de normen:

- NEN-EN 15512: 2009
- NEN 5056 (met doorverwijzingen hierin naar NPR 5054 en NPR 5055-1)

Achtergrond:

Op 1-6-2022 is door NEN de Europese productnorm gepubliceerd: NEN-EN 15512:2020 + A1:2022 'Stalen opslagsystemen – verstelbare pallet stellingssystemen – principes voor constructief ontwerpen'.

De aanvulling A1 geldt voor de Nederlandse markt (een nationale A-deviatie; vergelijkbaar met een nationale bijlage).

De normcommissie die gaat over de constructieve veiligheid kan niet bevestigen of bij toepassing van deze Europese norm wordt voldaan aan het Bouwbesluit 2012 (en in de toekomst aan het Bbl) en de daarbij horende betrouwbaarheid voor bouwwerken die is vastgelegd in de NEN-EN 1990.

Vandaar dat teruggegrepen wordt op de reeds bestaande normenreeks zoals bovenaan vermeld.

Deze hebben een ingetrokken status op de NEN-website, maar zijn toepasbaar

Unofficial translations

- Publication in “Bouwen met Staal” (February 2020)

APPLICATION PERMIT TO BUILD (OMGEVINGSVERGUNNING)

Racking & Shelving (R&S) need to comply with the Bouwbesluit 2012 (Building decree 2012) because they are legally categorised as “Construction Work not being a building”. They require a permit to build. “Omgevingsvergunningen” are required for R&S higher than 8,5 m and/or also intermediate floor- and/or walkway supporting.

From mid-2020 when giving substance to the Dutch A-Deviation to NEN-EN 15512:2020, the NEN TGB committees, with expertise in the field of the Eurocodes, were not involved. The assertion that this standard (EN 15512:2020 + A1:2022) complies with NEN-EN 1990 + A1 + A1/C2:2019 with National Annex :2019, is therefore not endorsed by the NEN TGB committees. The NEN-EN 15512:2020 + A1:2022 can therefore not be applied within the building regulations. The COBc (Centraal Overleg Bouwconstructies) / Vereniging Bouw- & Woningtoezicht Nederland) has therefore distanced itself from this standard. Their position is that the structural design of pallet rack structures should still be based on the “old” NEN-EN 15512:2009 inextricably linked to NEN 5056. In case of these standards the NEN TGB committees have been involved. Reference to the NL Foreword to both these standards.

NOTE Since 01 January 2024 the Building decree 2012 is replaced by the Besluit Bouwwerken Leefomgeving / Building Works Decree on the Environment – Bbl.

The COBc stresses that it is highly desirable to that consensus with the NEN TGB committees will be achieved at shortest notice.

- Website [Constructieve toetsing magazijnstellingen | Vereniging-BWT.nl](https://www.constructieve-toetsing-magazijnstellingen.nl)

Structural assessment of racking & shelving structures

With regard to the structural assessment of racking & shelving structures we base ourselves as competent authority on:

- NEN-EN 15512:2009
- NEN 5056 (with reference to NPR 5054 and NPR 5055-1)

Back ground

On 1-6-2022 NEN has published the European product standard: NEN-EN 15512:2020 + A1:2022 “Steel static storage systems – Adjustable pallet racking systems – Principles for structural design”.

The addition A1 is for the Dutch market (a “National A-deviation”, comparable with a “National Annex”)

The NEN standardisation committee responsible for the structural reliability/safety cannot confirm whether or not there will be compliance with the Bouwbesluit 2012 (and in the future the Besluit Bouwwerken Leefomgeving – Bbl) including the specified reliability for construction works as laid down in NEN-EN 1990 is met when this European standard is applied.

That is why there is a falling back on the already existing series of standards as mentioned above.

These series of standards are withdrawn as indicated on the NEN-website, however still applicable.